

INFORMATION DISCLOSURE
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(PTO-1449)

ATTY. DOCKET NO.
4066 D1/Consilium/DVSERIAL NO.
10/084,092

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John F. ARACKAPARAMBIL et al.FILING DATE
February 28, 2002GROUP
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U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	4,698,766	10/06/87	Entwistle et al.			05/17/85
	4,967,381	10/30/90	Lane et al.			07/06/89
	5,208,765	05/04/93	Turnbull			07/20/90
	5,226,118	07/06/93	Baker et al.			01/29/91
	5,231,585	07/27/93	Kobayashi et al.			06/20/90
all CKP JRL	5,420,796	05/30/95	Weling et al.			12/23/93
	5,469,361	11/21/95	Moyne			06/06/94
	5,525,808	06/11/96	Irie et al.			12/20/94
	5,586,039	12/17/96	Hirsch et al.			02/27/95
	5,603,707	02/18/97	Trombetta et al.			11/28/95
	5,664,987	09/09/97	Renteln			09/04/96
	5,812,407	09/22/98	Sato et al.			08/12/97
	5,828,778	10/27/98	Hagi et al.			06/12/96
	5,832,224	11/03/98	Fehskens et al.			06/14/96

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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
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SnG	61-171147	08/01/86	Japan				X
SnG	6-184434	07/05/94	Japan				X
JnG	0 621 522 A2	10/26/94	Europe			X	
SnG	8-50161	02/20/96	Japan				X
SnG	8-304023	11/22/96	Japan				X

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

SnG	February 1984. "Method and Apparatus of in Situ Measurement and Overlay Error Analysis for Correcting Step and Repeat Lithographic Cameras." <i>IBM Technical Disclosure Bulletin</i> , pp. 4855-4859.
SnG	October 1984. "Method to Characterize the Stability of a Step and Repeat Lithographic System." <i>IBM Technical Disclosure Bulletin</i> , pp. 2857-2860.

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	5,859,964	01/12/99	Wang et al.			10/25/96
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	5,870,306	02/09/99	Harada			06/13/97
	5,903,455	05/11/99	Sharpe, Jr. et al.			12/12/96
	5,916,016	06/29/99	Bothra			10/23/97
	5,923,553	07/13/99	Yi			10/05/96
	5,930,138	07/27/99	Lin et al.			09/10/97
	5,940,300	08/17/99	Ozaki			05/08/97
	5,960,214	09/28/99	Sharpe, Jr. et al.			12/04/96
	5,963,881	10/05/99	Kahn et al.			10/20/97
	5,982,920	11/09/99	Tobin, Jr. et al.			01/08/97
	6,041,270	03/21/00	Steffan et al.			12/05/97
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						Yes	No
SN6	0 747 795 A2	12/11/96	Europe			X	
SN6	10-173029	06/26/98	Japan				X
SN6	0 895 145 A1	02/03/99	Europe			X	
SN6	11-126816	05/11/99	Japan				X

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SN6	Schmid, Hans Albrecht. 1995. "Creating the Architecture of a Manufacturing Framework by Design Patterns." Austin, Texas: OOPSLA.
SN6	Baliga, John. July 1999. "Advanced Process Control: Soon to be a Must." Cahners Semiconductor International. www.semiconductor.net/semiconductor/issues/issues/1999/jul99/docs/feature1.asp

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	6,175,777	01/16/01	Kim			01/16/98
	6,178,390	01/23/01	Jun			09/08/98
	6,185,324	02/06/01	Ishihara et al.			01/31/95
	6,192,291	02/20/01	Kwon			10/08/98
	6,197,604	03/06/01	Miller et al.			10/01/98
	6,211,094	04/03/01	Jun et al.			08/23/99
	6,226,792	05/01/01	Goiffon et al.			10/14/98
	6,230,069	05/08/01	Campbell et al.			06/26/98
	6,236,903	05/22/01	Kim et al.			09/25/98
	6,240,330	05/29/01	Kurtzberg et al.			05/28/97

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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
Sn-b	11-135601	05/21/99	Japan				X
Sn-b	WO 00/05759	02/03/00	WO			X	
Tn-b	WO 00/35063	06/15/00	WO			X	

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Sn-b	July 5, 2001. "Motorola and Advanced Micro Devices Buy ObjectSpace Catalyst Advanced Process Control Product for Five Wafer fabs." Semiconductor FABTECH. www.semiconductorfabtech.com/industry.news/9907/20.07.shtml
Sn-b	October 15, 2001. Search Report prepared by the Austrian Patent Office for Singapore Patent Application No. 2000004286-1.
Sn-b	Johnson, Bob. June 10, 2002. "Advanced Process Control Key to Moore's Law." Gartner, Inc.
Sn-b	July 9, 2002. International Search Report prepared by the European Patent Office for PCT/US01/24910.
Sn-b	July 29, 2002. International Search Report prepared by the European Patent Office for PCT/US01/27407.
Sn-b	Sonderman, Thomas. 2002. "APC as a Competitive Manufacturing Technology: AMD's Vision for 300mm." AEC/APC.

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	6,240,331	05/29/01	Yun			08/18/98
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	6,252,412	06/26/01	Talbot et al.			01/08/99
	6,263,255	07/17/01	Tan et al.			05/18/98
	6,292,708	09/18/01	Allen et al.			06/11/98
	6,298,274	10/02/01	Inoue			09/01/99
	6,303,395	10/16/01	Nulman			06/01/99
	6,345,315	02/05/02	Mishra			08/12/98
	6,366,934	04/02/02	Cheng et al.			06/02/99

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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
SPW	WO 00/79355 A1	12/28/00	WO			X	
SNB	2001-76982	03/23/01	Japan				X
SNP	WO 01/33501 A1	05/10/01	WO			X	

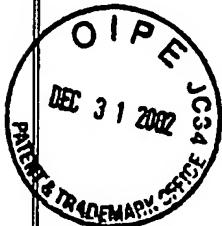
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

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SRL	5,270,222	12/14/93	Moslehi			12/31/90
SRC	5,375,064	12/20/94	Bollinger			12/02/93
SRL	5,599,423	02/04/97	Parker et al.			06/30/95
SRO	5,844,554	12/01/98	Geller et al.			09/17/96

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						Yes	No
Srb	WO 95/34866	12/21/95	WO			X	
Srb	WO 98/45090	10/15/98	WO			X	
Sro	EP 0 881 040 A2	12/02/98	Europe			X	
Srl	WO 99/25520	05/27/99	WO			X	
Srb	WO 00/54325	09/14/00	WO			X	
Srb	EP 1 066 925 A2	01/10/01	Europe			X	
Srb	EP 1 092 505 A2	04/18/01	Europe			X	

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Srb	Hu, Albert, Kevin Nguyen, Steve Wong, Xiuhua Zhang, Emanuel Sachs, and Peter Renteln. 1993. "Concurrent Deployment of Run by Run Controller Using SCC Framework." IEEE/SEMI International Semiconductor Manufacturing Science Symposium. pp. 126-132.
Srb	Hu, Albert, He Du, Steve Wong, Peter Renteln, and Emanuel Sachs. 1994. "Application of Run by Run Controller to the Chemical-Mechanical Planarization Process." IEEE/CPMT International Electronics Manufacturing Technology Symposium. pp. 371-378.
Sro	Smith, Taber, Duane Boning, James Moyne, Arnon Hurwitz, and John Curry. June 1996. "Compensating for CMP Pad Wear Using Run by Run Feedback Control." Proceedings of the Thirteenth International VLSI Multilevel Interconnection Conference. pp. 437-439.
Sro	Suzuki, Junichi and Yoshikazu Yamamoto. 1998. "Toward the Interoperable Software Design Models: Quartet of UML, XML, DOM and CORBA." Proceedings IEEE International Software Engineering Standards Symposium. pp. 1-10.
Srl	Klein, Bruce. June 1999. "Application Development: XML Makes Object Models More Useful." Informationweek. pp. 1A-6A.

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EXAMINER'S INITIALS	PUBLICATION / PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
5n6	5,889,991	03/30/99	Consolatti et al.			12/06/96
5n6	6,183,345 B1	02/06/01	Kamono et al.			03/20/98
5n6	6,253,366 B1	06/26/01	Mutschler, III			03/31/99
5n6	6,298,470 B1	10/02/01	Breiner et al.			04/15/99

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EXAMINER'S INITIALS	PUBLICATION / PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
5n6	WO 01/52055 A3	07/19/01	WO			X	
5n6	WO 01/57823 A2	08/09/01	WO			X	
5n6	EP 1 182 526 A2	02/27/02	Europe			X	
5n6	WO 02/17150 A1	02/28/02	WO			X	
5n6	WO 02/33737 A2	04/25/02	WO			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

5n6	Chemali, Chadi El, James Moyne, Kareemullah Khan, Rock Nadeau, Paul Smith, John Colt, Jonathan Chapple-Sokol, and Tarun Parikh. July/August 2000. "Multizone Uniformity Control of a Chemical Mechanical Polishing Process Utilizing a Pre- and Postmeasurement Strategy." J. Vac. Sci. Technol. A, Vol. 18(4). pp. 1287-1296. American Vacuum Society.
5n6	Jensen, Alan, Peter Renteln, Stephen Jew, Chris Raeder, and Patrick Cheung. June 2001. "Empirical-Based Modeling for Control of CMP Removal Uniformity." Solid State Technology, Vol. 44, No. 6, pp. 101-102, 104, 106. Cowan Publ. Corp.: Washington, D.C.
5n6	Sarfaty, Moshe, Arulkumar Shanmugasundram, Alexander Schwarm, Joseph Paik, Jimin Zhang, Rong Pan, Martin J. Seamons, Howard Li, Raymond Hung, and Suketu Parikh. April/May 2002. "Advance Process Control Solutions for Semiconductor Manufacturing." IEEE/SEMI Advanced Semiconductor Manufacturing Conference. pp. 101-106.
5n6	October 4, 2002. International Search Report from PCT/US01/22833.
5n6	October 23, 2002. International Search Report from PCT/US01/27406.
5n6	November 7, 2002. International Search Report from PCT/US02/19061.
5n6	November 11, 2002. International Search Report from PCT/US02/19117.
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	3,229,198	01/11/66	Libby			09/28/62
	4,000,458	12/28/76	Miller et al.			08/21/75
	4,302,721	11/24/81	Urbanek et al.			APR 23 2003
	4,750,141	06/07/88	Judell et al.			05/15/79
	4,757,259	07/12/88	Charpentier			11/26/85
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	5,283,141	02/01/94	Yoon et al.			02/09/89
	5,338,630	08/16/94	Yoon et al.			03/05/92
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	5,497,381	03/05/96	O'Donoghue et al.			04/05/90
	5,511,005	04/23/96	Abbe et al.			06/01/95
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	5,526,293	06/11/96	Mozumder et al.			12/17/93
	5,541,510	06/30/96	Danielson			04/24/94
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	5,646,870	07/08/97	Krivokapic et al.			06/20/95
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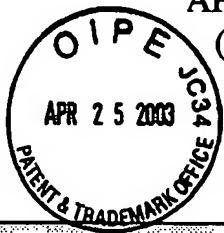
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	5,719,796	02/17/98	Chen			12/04/95
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	6,143,646	11/07/00	Wetzel			06/03/97
	6,148,099	11/14/00	Lee et al.			07/03/97
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	6,172,756	01/09/01	Chalmers et al.	APR 28 2003		12/11/98
	6,173,240	01/09/01	Sepulveda et al.			11/02/98
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	6,307,628	10/23/01	Lu et al.			08/18/00
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	2001/0039462	11/08/01	Mendez et al.			04/02/01
	6,320,655	11/20/01	Matsushita et al.			03/15/00
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004066 USA
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SERIAL NO.
10/084,092

APPLICANT
John F. ARACKAPARAMBIL et al.

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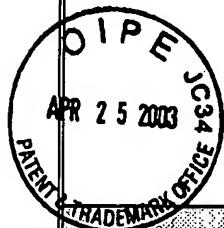
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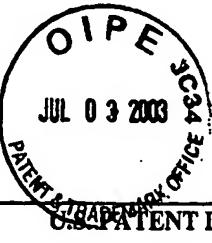
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EXAMINER <i>M. mls</i>	DATE CONSIDERED <i>10/3/05</i>		

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<p style="text-align: center;">INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)</p>			ATTY. DOCKET NO. 004066 USA D01/Consilium/Consilium	SERIAL NO. 10/084,092 RECEIVED JUL 17 2003 Technology Center 2100		
			APPLICANT John F. ARACKAPARAMBIL et al.			
			FILING DATE February 28, 2002	GROUP 2121		
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	4,368,510	01/11/83	Anderson			10/20/80
	4,616,308	10/07/86	Morshed et al.			12/02/85
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	5,347,446	09/13/94	Iino et al.			02/10/92
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	2001/0040997	11/15/01	Tsap et al.			05/15/01
	2002/0128805	09/12/02	Goldman et al.			12/26/00
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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation
						Yes
SN6	EP 1 067 757	01/10/01	Europe			X
SN6	WO 01/33277	05/10/01	WO			X
SN6	WO 02/31613 A2	04/18/02	WO			X
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SHEET 1 OF 1

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APPLICANT
John F. ARACKAPARAMBIL et al.

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FILING DATE
February 28, 2002

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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
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Sn G	WO 99/59200	11/18/99	WIPO			X	
Sn D	WO 01/52319	07/19/01	WIPO			X	

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EXAMINER	DATE CONSIDERED
H. Sald	10/3/03

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	5,427,878	06/27/95	Corliss			05/16/94
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SN-6	WO 01/11679	02/15/01	WIPO			X	
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						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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<i>Sh L</i>	El Chemali, Chadi et al. July/August 2000. "Multizone uniformity control of a chemical mechanical polishing process utilizing a pre- and postmeasurement strategy." <i>J. Vac. Sci. Technol.</i> Volume 18, No. 4. pp. 1287 – 1296.					
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		APPLICANT John F. ARACKAPARAMBIL et al.					
		FILING DATE February 28, 2002		GROUP 2121			
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EXAMINER <i>Gauld</i>			DATE CONSIDERED <i>10/3/05</i>				

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**INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)**



ATTY. DOCKET NO.
004066 USA
D01/Consilium/Consilium

SERIAL NO.
10/084,092

APPLICANT
John F. ARACKAPARAMBIL et al.

FILING DATE
February 28, 2002

GROUP
2121

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
SAU	EP 0 932 195 A1	07/28/99	EP			X	
SAU	EP 1 083 470 A2	03/14/01	EP			X	
SAU	GB 2 365 215 A	02/13/02	GB			X	

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SAU	Sun, S.C. 1998. "CVD and PVD Transition Metal Nitrides as Diffusion Barriers for Cu Metallization." <i>IEEE</i> . pp. 243-246.
SAU	Tagami, M., A. Furuya, T. Onodera, and Y. Hayashi. 1999. "Layered Ta-nitrides (LTN) Barrier Film by Power Swing Sputtering (PSS) Technique for MOCVD-Cu Damascene Interconnects." <i>IEEE</i> . pp. 635-638.
SAU	Yamagishi, H., Z. Tokei, G.P. Beyer, R. Donaton, H. Bender, T. Nogami, and K. Maex. 2000. "TEM/SEM Investigation and Electrical Evaluation of a Bottomless I-PVD TA(N) Barrier in Dual Damascene" (Abstract). <i>Advanced Metallization Conference 2000</i> . San Diego, CA.
SAU	Eisenbraun, Eric, Oscar van der Straten, Yu Zhu, Katharine Dovidenko, and Alain Kaloyeros. 2001. "Atomic Layer Deposition (ALD) of Tantalum-Based Materials for Zero Thickness Copper Barrier Applications" (Abstract). <i>IEEE</i> . pp. 207-209.
SAU	Smith, S.R., K.E. Elers, T. Jacobs, V. Blaschke, and K. Pfeifer. 2001. "Physical and Electrical Characterization of ALD Tin Used as a Copper Diffusion Barrier in 0.25 mum, Dual Damascene Backend Structures" (Abstract). <i>Advanced Metallization Conference 2001</i> . Montreal, Quebec.
SAU	Kim, Y.T. and H. Sim. 2002. "Characteristics of Pulse Plasma Enhanced Atomic Layer Deposition of Tungsten Nitride Diffusion Barrier for Copper Interconnect" (Abstract). <i>IEIC Technical Report</i> . Vol. 102, No. 178, pp. 115-118.
SAU	Elers, Kai-Erik, Ville Saanila, Pekka J. Soininen, Wei-Min Li, Juhana T. Kostamo, Suvi Haukka, Jyrki Juhanoja, and Wim F.A. Besling. 2002. "Diffusion Barrier Deposition on a Copper Surface by Atomic Layer Deposition" (Abstract). <i>Advanced Materials</i> . Vol. 14, No. 13-14, pp. 149-153.
SAU	Peng, C.H., C.H. Hsieh, C.L. Huang, J.C. Lin, M.H. Tsai, M.W. Lin, C.L. Chang, Winston S. Shue, and M.S. Liang. 2002. "A 90nm Generation Copper Dual Damascene Technology with ALD TaN Barrier." <i>IEEE</i> . pp. 603-606.
SAU	Van der Straten, O., Y. Zhu, E. Eisenbraun, and A. Kaloyeros. 2002. "Thermal and Electrical Barrier Performance Testing of Ultrathin Atomic Layer Deposition Tantalum-Based Materials for Nanoscale Copper Metallization." <i>IEEE</i> . pp. 188-190.
SAU	Wu, Z.C., Y.C. Lu, C.C. Chiang, M.C. Chen, B.T. Chen, G.J. Wang, Y.T. Chen, J.L. Huang, S.M. Jang, and M.S. Liang. 2002. "Advanced Metal Barrier Free Cu Damascene Interconnects with PECVD Silicon Carbide Barriers for 90/65-nm BEOL Technology." <i>IEEE</i> . pp. 595-598.
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SAU	April 9, 2004. Written Opinion for PCT/US02/19116.
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OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)			
SAC	April 28, 2004. Written Opinion for PCT/US02/19117.		
SAC	April 29, 2004. Written Opinion for PCT/US02/19061.		
SAC	May 5, 2004. Office Action for U.S. Serial No. 09/943,955, filed August 31, 2001.		
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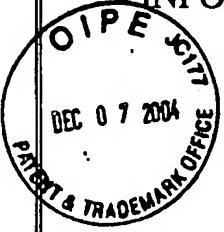
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		APPLICANT John F. ARACKAPARAMBIL et al.		Technology Center 2100	
		FILING DATE February 28, 2002		GROUP 2121	
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	5,975,994	11/02/99	Sandhu et al.		06/11/97
	6,113,462	09/05/00	Yang		12/18/97
	6,230,069 B1	05/08/01	Campbell et al.		06/26/98
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	6,725,402 B1	04/20/04	Coss, Jr. et al.		07/31/00
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		OCT 13 2004	Technology Center 2100				
<table border="1"> <tr> <td colspan="2">APPLICANT John F. ARACKAPARAMBIL et al.</td> </tr> <tr> <td>FILING DATE February 28, 2002</td> <td>GROUP 2121</td> </tr> </table>				APPLICANT John F. ARACKAPARAMBIL et al.		FILING DATE February 28, 2002	GROUP 2121
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SN 6	IslamRaja, M. M., C. Chang, J. P. McVittie, M. A. Cappelli, and K. C. Saraswat. May/June 1993. "Two Precursor Model for Low-Pressure Chemical Vapor Deposition of Silicon Dioxide from Tetraethylorthosilicate." <i>J. Vac. Sci. Technol. B</i> , Vol. 11, No. 3, pp. 720-726.						
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SN 6	Guo, R.S, A. Chen, C.L. Tseng, I.K. Fong, A. Yang, C.L. Lee, C.H. Wu, S. Lin, S.J. Huang, Y.C. Lee, S.G. Chang, and M.Y. Lee. June 16-17, 1998. "A Real-Time Equipment Monitoring and Fault Detection System." <i>Semiconductor Manufacturing Technology Workshop</i> , pp. 111-121.						
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SN 6	August 2, 2004. Office Action for U.S. Serial No. 10/174,377, filed June 18, 2002.						
SN 6	August 9, 2004. Written Opinion for PCT Serial No. PCT/US02/19063.						
SN 6	August 18, 2004. International Preliminary Examination Report for PCT Serial No. PCT/US02/19116.						
SN 6	August 24, 2004. Office Action for U.S. Serial No. 10/135,405, filed May 1, 2002.						
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SN 6	September 9, 2004. Written Opinion for PCT Serial No. PCT/US02/21942.						
SN 6	September 16, 2004. International Preliminary Examination Report for PCT Serial No. PCT/US02/24859.						
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	6,381,564 B1	04/30/02	David et al.				05/03/99
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	2003/0154062 A1	08/14/03	Daft et al.				10/15/01
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	6,774,998 B1	08/10/04	Wright et al.				12/27/01
	6,751,518 B1	06/15/04	Sonderman et al.				04/29/02
	6,678,570 B1	01/13/04	Pasadyn et al.				06/26/01
	6,735,492 B2	05/11/04	Conrad et al.				07/19/02
EXAMINER <i>Harold</i>			DATE CONSIDERED <i>10/20/05</i>				

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<i>Sn 6</i>	September 15, 2004. Office Action for U.S. Serial No. 10/632,107, filed August 1, 2003.		
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<i>Sn 6</i>	October 1, 2004. International Preliminary Examination Report for PCT Serial No. PCT/US03/23964.		
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<i>Sn 6</i>	November 17, 2004. Written Opinion for PCT Serial No. PCT/US01/27407.		
EXAMINER <i>[Signature]</i>	DATE CONSIDERED <i>10/31/05</i>		

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Sn 6	June 9, 2005. Search Report issued for Singapore Application No. 200004286-1, filed July 27, 2000.		
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<i>Garret</i>	<i>10/3/05</i>		

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	5,329,463	07/12/94	Sierk et al.			01/13/93
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	5,503,707	04/02/96	Maung et al.			09/22/93
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EXAMINER'S INITIALS	PATENT NO./PUBLICATION NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation
						Yes No
Sn G	2,050,247	08/29/91	Canada			X
Sn G	2,165,847	08/29/91	Canada			X
Sn G	2,194,855	08/29/91	Canada			X
Sier G	05-151231	06/18/93	Japan			X
Sn G	05-216896	08/27/93	Japan			X
Sn G	05-266029	10/15/93	Japan			X
Sn G	06-110894	04/22/94	Japan			X
Sier G	06-176994	06/24/94	Japan			X
Sn G	06-252236	09/09/94	Japan			X
Sn G	06-260380	09/16/94	Japan			X
Sn G	1072967A3	11/21/01	Europe			X

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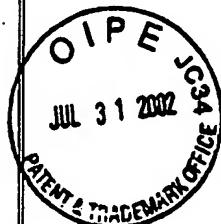
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SNL	5,694,325	12/02/97	Fukuda et al.			11/22/95
SNL	5,838,595	11/17/98	Sullivan et al.			11/25/96

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SNL	Zhou, Zhen-Hong and Rafael Reif. August 1995. "Epi-Film Thickness Measurements Using Emission Fourier Transform Infrared Spectroscopy—Part II: Real-Time <i>in Situ</i> Process Monitoring and Control." <i>IEEE Transactions on Semiconductor Manufacturing</i> , Vol. 8, No. 3.
SNL	Telfeyan, Roland, James Moyne, Nauman Chaudhry, James Pugmire, Scott Shellman, Duane Boning, William Moyne, Arnon Hurwitz, and John Taylor. October 1995. "A Multi-Level Approach to the Control of a Chemical-Mechanical Planarization Process." Minneapolis, Minnesota: 42 nd National Symposium of the American Vacuum Society.
SNL	Chang, E., B. Stine, T. Maung, R. Divecha, D. Boning, J. Chung, K. Chang, G. Ray, D. Bradbury, O. S. Nakagawa, S. Oh, and D. Bartelink. December 1995. "Using a Statistical Metrology Framework to Identify Systematic and Random Sources of Die- and Wafer-level ILD Thickness Variation in CMP Processes." Washington, D.C.: International Electron Devices Meeting.
SNL	Smith, Taber, Duane Boning, James Moyne, Arnon Hurwitz, and John Curry. June 1996. "Compensating for CMP Pad Wear Using Run by Run Feedback Control." Santa Clara, California: VLSI Multilevel Interconnect Conference.
SNL	Boning, Duane, William Moyne, Taber Smith, James Moyne, Roland Telfeyan, Arnon Hurwitz, Scott Shellman, and John Taylor. October 1996. "Run by Run Control of Chemical-Mechanical Polishing." <i>IEEE Trans. CPMT (C)</i> , Vol. 19, No. 4, pp. 307-314.

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SN 6	Edgar, Thomas F., Stephanie W. Butler, Jarrett Campbell, Carlos Pfeiffer, Chris Bode, Sung Bo Hwang, and K.S. Balakrishnan. May 1998. "Automatic Control in Microelectronics Manufacturing: Practices, Challenges, and Possibilities." <i>Automatica</i> , Vol. 36, pp. 1567-1603, 2000.
SN 6	Chemali, Chadi El, James Moyne, Kareemullah Khan, Rock Nadeau, Paul Smith, John Colt, Jonathan Chapple-Sokol, and Tarun Parikh. November 1998. "Multizone Uniformity Control of a CMP Process Utilizing a Pre and Post-Measurement Strategy." Seattle, Washington: SEMETECH Symposium.
SN 6	Moyne, James. October 1999. "Advancements in CMP Process Automation and Control." Hawaii: (Invited paper and presentation to) Third International Symposium on Chemical Mechanical Polishing in IC Device Manufacturing: 196 th Meeting of the Electrochemical Society.
SN 6	Lee, Brian, Duane S. Boning, Winthrop Baylies, Noel Poduje, Pat Hester, Yong Xia, John Valley, Chris Koliopoulos, Dale Hetherington, HongJiang Sun, and Michael Lacy. April 2001. "Wafer Nanotopography Effects on CMP: Experimental Validation of Modeling Methods." San Francisco, California: Materials Research Society Spring Meeting.
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	5,089,970	02/18/92	Lee et al.			10/05/89
	5,108,570	04/28/92	Wang			03/30/90
	5,236,868	08/17/93	Nulman			04/20/90
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	5,309,221	05/03/94	Fischer et al.			12/31/91
	5,367,624	11/22/94	Cooper			06/11/93
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						Yes No
Sn6	01-283934	11/15/89	Japan			X
Sn6	08-149583	11/15/89	Japan			X
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Sn6	0877308 A2	11/11/98	Europe			X
Tn6	11-67853	03/09/99	Japan			X

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	5,740,429	04/14/98	Wang et al.			07/07/95
	5,751,582	05/12/98	Saxena et al.			09/24/96
	5,754,297	05/19/98	Nulman			04/14/97
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5n 0	Zorich, Robert. 1991. <i>Handbook of Quality Integrated Circuit Manufacturing</i> . pp. 464-498 San Diego, California: Academic Press, Inc.
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Hall

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APPLICANT
John F. ARACKAPARAMBIL et al.

FILING DATE
February 28, 2002

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U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,808,303	09/15/98	Schlagheck et al.			01/29/97
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OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

SNB	Van Zant, Peter. 1997. <i>Microchip Fabrication: A Practical Guide to Semiconductor Processing</i> . Third Edition, pp. 472-478. New York, New York: McGraw-Hill.
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